wherein the prokaryotic beta recombinase is capable of using factors provided by the eukaryotic cells in order to exhibit recombinase activity.

28. (Amended) A method for mediating intramolecular recombination in chromatin structures of eukaryotic cells [controlling gene expression in eukaryots], comprising [introducing] the step of providing eukaryotic cells with prokaryotic beta recombinase and its specific target sequences; [in the eukaryots]
wherein the prokaryotic beta recombinase is capable of using factors provided by the eukaryotic cells in order to exhibit recombinase activity.

33. (Amended) A method according to claim 32, wherein two or more recombination events involving different DNA sequences occur at the same time;
wherein each DNA sequence is located between target sequences [different specific recombination events at a time are promoted].

37. (Amended) A method according to claim 32, ~~wherein~~ the prokaryotic beta recombinase promotes deletion of a DNA fragment located [laying] between two directly oriented *six* sites.

38. (Amended) A method according to claim 37, wherein the prokaryotic beta recombinase promotes inversion of a DNA fragment located [laying] between two inversely oriented *six* sites.

39. (Amended) A method according to claim 38, wherein the prokaryotic beta recombinase promotes deletion of a DNA fragment located [laying] between direct repeated [specific recognition] target sequences.

40. (Amended) A method according to claim 38, wherein the prokaryotic beta recombinase promotes inversion of a DNA fragment located [laying] between inverted repeated [specific recognition] target sequences.

B6

43. (Amended) A method for catalysing site-specific resolution of DNA sequences in an extrachromosomal target introduced into an eukaryotic cell, comprising [catalysing the site-specific resolution with the gene coding for beta recombinase] the step of catalysing the site-specific resolution with beta recombinase;

wherein the eukaryotic cell provides factors which beta recombinase is capable of using in order to exhibit recombinase activity.

B7

48. (Amended) A method according to claim 43, wherein the DNA sequences are located [allocated] between [the] *six* sites.

49. (Amended) A method according to claim 43, wherein [the] *six* sites are integrated in the genome as chromatin associated structures.

50. (Amended) A method according to claim 43, wherein [the] *six* sites are integrated in the genome and wrapped on a nucleosome at several locations.

B8 Sub C4

52. (Amended) A method according to claim 27 for development of transgenic mammalian cells, further comprising the step of selecting eukaryotic cells from the group consisting of mammalian cells [animals].

Please add the following claims:

B9 Sub C5

--53. (New) A method according to claim 27, wherein the factors provided by the eukaryotic cells comprise HMG1 chromatin-associated protein.--

B10

--54. (New) A method according to claim 28, wherein the factors provided by the eukaryotic cells comprise chromatin-associated protein.--

Sub C6

--55. (New) A method according to claim 28, wherein the chromatin-associated protein comprises HMG1 chromatin-associated protein.--

--56. (New) A method according to claim 28 , wherein the prokaryotic beta recombinase promotes the deletion of DNA sequences located between direct repeated *six* sites in the chromatic structures.--

--57. (New) A method according to claim 28 , wherein the prokaryotic beta recombinase promotes the inversion of DNA sequences located between inverted repeated *six* sites in the chromatic structures.--

--58. (New) A method of promoting beta recombinase activity comprising the step of providing beta recombinase with eukaryotic cell factors which the beta recombinase is capable of using in order to exhibit recombinase activity.--

--59. (New) A method according to claim 58, wherein the beta recombinase is a prokaryotic beta recombinase.--

--60. (New) A method according to claim 58, wherein the factors provided by the eukaryotic cells comprise HMG1 chromatin-associated protein.--

REMARKS

The Official Action dated January 19, 2000, has been carefully considered. Accordingly, the changes presented herewith, taken with the following remarks, are believed sufficient to place the present application in condition for allowance. Reconsideration is respectfully requested.

Claim 34 has been canceled. Claims 27-28, 33, 37-40, 43, and 48-50 have been amended. Support for the amendments to Claims 27-28 and Claim 43 can be found on page 4, lines 1-3 and page 9, lines 29-30. Support for the amendment to Claim 33 can be found on page 4, lines 15-16 and page 13, lines 10-13. Claims 37-40 and Claims 48-50 have been amended as to form.

Claims 53-60 have been added. Support for Claims 53-55 and 60 can be found on page 8, line 25-page 9, line 1. Support for Claim 56 can be found on page 12, lines 5-10 and in original Claims 10 and 12, while support for Claim 57 can be found in original Claims 11 and